IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re:	Oleg Illich Epshtein	Confirmation No:	8482
Application No:	10/522,652	Group:	1644
Filed:	January 22, 2005	Examiner:	Wen, Sharon X.
For:	Media and Method for Treating Pathological Syndrome		
Customer No.:	29127		

Attorney Docket No.	0075.0011US1

DECLARATION UNDER 37 C.F.R. § 132 OF INVENTOR OLEG I. EPSHTEIN

1. I am Oleg I. Epshtein, a named inventor in the above-referenced U.S. patent application. I declare and affirm under the penalty of perjury under the laws of the United States that the following is true and correct based on my personal knowledge, or where not on my personal knowledge, on my information and belief.

2. I am the principal of the company "Materia Medica" which has been closely involved in the development and testing of the invention claimed in the referenced U.S. patent application. I declare as follows:

3. Homeopathic therapy and technique have been known and used since about two centuries ago. Homeopathic treatment has been founded on the principle of individualization of compounds with therapeutic activity used in ultra low doses.

4. About 20 years ago modern experimental research has shown that, independently of being tied to a specific scientific theory or explanation, ultra low doses of such compounds exhibit biological activity. It has been suggested that the observed biological activity is the result of method of preparation of the solutions: a combination of multiple consecutive dilutions and the influence of mechanical factors, all together known as a homeopathic potentiation technology. If other techniques of preparing ultra-diluted solutions are used, such as, for example, medical micropipetting, ultra diluted solutions did not exhibit biological activity.

5. In my earlier research I have established as previously unknown phenomenon with regard to the potentiated solutions. I have established that a potentiated substance,

obtained from a given initial substance, has therapeutic effect on that same initial substance. That phenomenon turned out to be true for in vitro and in vivo experiments. For example, a homeopathic ultra low dose of a known substance – ATF changes the speed of hydrolysis of ATF. An ultra low dose of LiCl affect the electroconductivity of LiCl in a solution I have proven that in vivo an ultra low dose always has some influence on the effect of the regular dose (also called a base dose) of a substance. In is principally important to emphasize that an ultra low dose of a substance influences always influences a base dose of a substance or a medicament only with respect to that same substance from which the ultra low dose was obtained.

6. During my experiments on influence of homeopathic ultra low doses on base doses, I have established that ultra low doses of antibodies influence the known effects of the antibodies. The first results were obtained with antibodies to the S-100 protein. The same model was used to discover that other antibodies in homeopathic ultra low doses cause effect on the antibodies in the traditional physiological concentrations, which demonstrates that the discovered phenomenon (a homeopathic ultra low dose of an antibody influences the effect of the same antibody in a traditional dose) is universal across different antibodies.

7. The latest developments in immunology have shown that antibodies not only play their role as anti-bacterial agents, but also are regulators of various physiological processes, similar to hormones, neuropeptides and other biologically active molecules. Presently, a small amount of antibodies (micrograms) has been discovered in blood for a large number of endogenous molecules. These existing antibodies are called natural or preexisting. It has been proven that such antibodies do not suppress the physiological activity of a molecule against which the antibodies were generated, but stabilize (modify) that molecule. At the same time antibodies retain their main property – their specificity. In the context of regulating physiological functions and processes, the antibodies specifically modify the activity of only those molecules against which the antibodies were generated.

8. The inventors' discovery is the effect of an ultra-low dosage of a substance on that substance. That includes antibodies. We have proven two principal moments:

1) used examples of ultra-low dosages of antibodies to γ-interferon, protein S100 and antibodies to opiates to demonstrate that they normalize the content of the corresponding natural antibodies in serum, which is a direct proof of the effect of the ultra low doses of antibodies on the natural antibodies.
2) it has been demonstrated during tens and tens of experiments, as well as clinical trials, that the systemic effect of ultra-low doses unidirectional with the effect of natural antibodies: potentiated antibodies do not suppress the effects known for one or another endogenous molecule, but modify it.

9. Modern anti-tumor substances based on antibodies and anti-serum based on antibodies cause therapeutic effect via direct specific bonding with a certain antigen – antibodies suppress the activity of an antigen. For the reasons not completely understood

today, potentiated antibodies do not suppress the activity of endogenous regulators, but modify them. For example, ultra low doses to a known cytokine interferon – γ increase the yield of endogenous interferon, while ultra low doses of antibodies to other cytokines do not affect the expression of γ-interferon. In another example, ultra low doses of antibodies to erytropoetin affect the erytropoetic activity, and the ultra low antibodies to granulocyte colony stimulating factor – on the granulocyte macrophage activity, which effect is of a very specific nature. Or, for example, ultra low doses of antibodies to NO-synthase do not block the activity of the enzyme, but increase its activity, which leads to the increased level of NO in tissue.

10. These kinds of antibodies to antigens from different groups are registered in Russia as approved medicaments.

1. Antibodies to cytokines and growth factors.
2. Antibodies to enzymes (IMPase, trypsin like protease – prostate specific antigen)
3. Antibodies to receptors (AT1 receptor angiotension II)
4. Antibodies to low molecular compounds – histamine, cholecystokinine, morphine and others.

11. All referenced medicaments have undergone the required experimental and clinical research. Despite the fact that the antigens belong to different functional groups, the ultra-low doses of their antibodies showed therapeutical activity while being safe and non-addictive. Medicaments based on ultra-low doses have therapeutic effect for different kinds of illnesses, which evidences the common mechanism of this class of medicaments. According to our results, the new phenomenon – modification of the effects of an endogenous molecule by introducing ultra low doses of antibodies to that regulator (antigen) is universal and can be used for creating and making of a much larger number of medicaments. Examples of many more experimental data confirming the stated discovery are attached to this Declaration as Appendix A (ultra low doses of antibodies to human interferon γ).

12. Development of the medicaments based on ultra-low doses of antibodies has propelled Materia Medica, the inventor's company, to be one of the six largest manufacturers of medicines in Russia. Its Anaferon (the medicine based on ultra-low doses of antibodies to γ-interferon as described in the present application) is in the top 20 best sellers on the Russian pharmaceutical market, with more than 760 million doses manufactured and sold. It is also one of the leading export products from Russia to Ukraine and Kazakhstan.

Oleg I. Epshtein

Date: January 14, 2008
Moscow, Russia